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add B

What is claimed is:

1 1. A supercapacitor structure comprising in contiguity a positive electrode member, a negative electrode member, and a

separator member interposed therebetween

characterized in that

- a) each of said electrode members comprises an activated carbon fabric element to which is bonded an electrically-conductive current collector element,
 - b) said separator member comprises a micro-fibrillar ultrahigh molecular weight polyolefin membrane, and
 - c) each said member is bonded to one or more contiguous members at its respective interface to form a unitary flexible laminate structure.
- 2. A supercapacitor structure according to claim 1 wherein said polyolefin membrane comprises polyethylene.
- 1 3. A supercapacitor structure according to claim 1 wherein at
- 2 least one of said collector elements comprises an open-mesh
- 3 grid.
- 1 4. A supercapacitor structure according to claim 3 wherein
- 2 said collector element grids are thermally bonded to associated
- 3 carbon fabric by an electrically-conductive thermoadhesive
- 4 composition.

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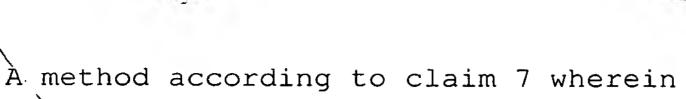
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- 1 5. A supercapacitor structure according to claim 4 wherein
- 2 said carbon fabric electrode elements are thermally bonded to
- 3 the interposed separator member by virtue of the thermoadhesive
- 4 nature of said polyolefin membrane.
- 1 6 A method of making a supercapacitor structure which
- 2 comprises arranging contiguously a positive electrode member, a
- 3 negative electrode member, and a separator member interposed
- 4 therebetween
 - characterized in that
 - a) each of said electrode members is formed of an activated carbon fabric element bonded to an electrically-conductive current collector element,
 - b) said separator member is formed of a micro-fibrillar ultra-high molecular weight polyolefin membrane, and
 - c) each said member is bonded to one or more contiguous members at its respect interface to form a unitary flexible laminate structure.
 - 7. A method according to claim 6 wherein
- a) at least one surface of each said collector element is coated with a layer of electrically-conductive thermoadhesive composition,
 - b) each fabric electrode element is arranged in surface contact with the coated surface of its associated collector element to form a subassembly, and
- c) said subassembly is laminated under heat and pressure to form a unitary electrode member.





- a) the exposed fabric surface of each said electrode member is arranged in contact with a respective surface of said
- 4 separator member and
- b) said arrangement is laminated under heated and pressure to soften at least said separator member surfaces and effect an
- 7 adhesive laminate bond between said members.